

**ADDISON TOWNSHIP MERCURY SPILL
ADDISON TOWNSHIP, MICHIGAN
DATA VALIDATION REPORT**

Date: April 18, 2007

Laboratory: RTI Laboratories, Inc. (RTI), Livonia, Michigan

Laboratory Work Order #: 0703913

Data Validation Performed By: Lisa Graczyk, Dynamac Corporation (Dynamac), subcontractor to Weston Solutions, Inc. (Weston)

Weston Analytical Work Order #/TDD #: 20405.016.002.0178.00 /S05-0703-019

This data validation report has been prepared by Dynamac, a Weston subcontractor, under the START III Region V contract. This report documents the data validation for waste samples collected for the Addison Township Mercury Spill Site that were analyzed for total mercury using U.S. Environmental Protection Agency (U.S. EPA) SW-846 method 7471A.

A level III data package was requested from RTI. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" dated October 2004.

The attachment contains the results summary sheets.

TOTAL MERCURY BY U.S. EPA SW-846 METHOD 7471A

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
SS-01 3-28-07	0703913-001A	Soil	03-28-07	03-29-07
SS-02 3-28-07	0703913-002A	Soil	03-28-07	03-29-07
SS-03 3-28-07	0703913-003A	Soil	03-28-07	03-29-07
SS-04 3-28-07	0703913-004A	Soil	03-28-07	03-29-07
SS-05 3-28-07	0703913-005A	Soil	03-28-07	03-29-07
SS-06 3-28-07	0703913-006A	Soil	03-28-07	03-29-07
SS-07 3-28-07	0703913-007A	Soil	03-28-07	03-29-07
SS-08 3-28-07	0703913-008A	Soil	03-28-07	03-29-07
SS-09 3-28-07	0703913-009A	Soil	03-28-07	03-29-07
SS-10 3-28-07	0703913-010A	Soil	03-28-07	03-29-07
SS-11 3-28-07	0703913-011A	Soil	03-28-07	03-29-07

2. **Holding Times**

All samples were received in good condition by the laboratory. The samples were analyzed within the required holding time limit of 28 days from sample collection.

3. **Blank Results**

The method blank was free of target analyte contamination above the reporting limit.

4. **Laboratory Control Sample (LCS) Results**

The LCS recovery was within the laboratory-established QC limit of 80 to 120% recovery for mercury.

5. **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results**

RTI analyzed an MS/MSD pair using a sample from another project. Therefore, the MS and MSD sample recoveries could not be evaluated for the Addison Township Mercury Site. No qualifications were applied for this omission.

6. **Field Duplicate Results**

Sample SS-08 was collected as a field duplicate of sample SS-01. The concentrations of mercury in these two samples were 2,100 micrograms per kilogram ($\mu\text{g/kg}$) and 160 $\mu\text{g/kg}$, respectively. The relative percent difference between these two results was 172 percent. The large difference in these two results is likely due to a heterogeneous mix of the mercury in the soil. No qualification was applied for this discrepancy.

7. **Overall Assessment**

The metals data are acceptable for use as qualified. RTI appropriately flagged those results detected above the method detection limit but below the reporting limit as “J” or estimated.

Data Validation Report
Addison Township Mercury Spill Site
RTI Laboratories, Inc.
Laboratory Work Order #: 0703913

ATTACHMENT

**RTI LABORATORIES, INC.
RESULTS SUMMARY**

**RTI LABORATORIES, INC.**

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Website: www.rtilab.com

Analytical Report

(single analyte)

WO#: **0703913**

Date Reported: **3/29/2007**

CLIENT:	Weston Solutions, Inc.	Lab Order:	0703913
Project:	Addison Twp. Mercury Spill #20405.016.002.0	Date Received:	3/29/2007 8:30:1
Project No:		Matrix:	Soil
Analyte:	Mercury		

Laboratory ID	Client Sample ID	Results	Qual	Units	RL	DF	Date Collected	Date Analyzed
SW7471A-Mercury								
0703913-001A	SS-01 3/28/07	160		µg/Kg-dry	21	1	3/28/2007	3/29/2007
0703913-002A	SS-02 3/28/07	14	J	µg/Kg-dry	22	1	3/28/2007	3/29/2007
0703913-003A	SS-03 3/28/07	16	J	µg/Kg-dry	29	1	3/28/2007	3/29/2007
0703913-004A	SS-04 3/28/07	24	J	µg/Kg-dry	31	1	3/28/2007	3/29/2007
0703913-005A	SS-05 3/28/07	27	J	µg/Kg-dry	30	1	3/28/2007	3/29/2007
0703913-006A	SS-06 3/28/07	24	J	µg/Kg-dry	29	1	3/28/2007	3/29/2007
0703913-007A	SS-07 3/28/07	20	J	µg/Kg-dry	32	1	3/28/2007	3/29/2007
0703913-008A	SS-08 3/28/07	2,100		µg/Kg-dry	240	10	3/28/2007	3/29/2007
0703913-009A	SS-09 3/28/07	21		µg/Kg-dry	20	1	3/28/2007	3/29/2007
0703913-010A	SS-10 3/28/07	13	J	µg/Kg-dry	25	1	3/28/2007	3/29/2007
0703913-011A	SS-11 3/28/07	400		µg/Kg-dry	20	1	3/28/2007	3/29/2007

Qualifiers:	* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		